

[News story: Young innovators recognised in Forbes 30 under 30](#)

Eleven UK-based start-ups that have received Innovate UK support were named in the list of business and industry figures to watch in 2017.

[Forbes 30 under 30 Europe 2017](#) highlights the brightest young entrepreneurs, innovators and game changers with the potential to change the world. Across 6 of the 10 industry categories in Europe, 11 of the projects honoured have received Innovate UK support.

Winning projects

Industry

- Susan Graham, co-founder of [BioCarbon Engineering](#), which uses drones and remotesensing to restore woodlands and forests by planting trees quickly and cheaply

Retail and ecommerce

- Freddy Macnamara, founder of [Cuvva](#). Cuvva's car insurance model is designed to more accurately represent drivers' risk profiles. It allows customers to insure their parked car for a base fee and only pay extra when they drive it

Media

- David Benigson, CEO of [Signal](#), which uses artificial intelligence (AI) to provide hyper-relevant real-time content and news to businesses

Science and healthcare

- Amrit Chandan and Carlton Cummins, co-founders of [Aceleron](#). This partnership is working to convert end-of-life electric vehicle batteries into safe, cost-effective energy storage for developing regions
- Alex Bond, CEO of [Fresh Check](#). With fellow Imperial College PhD students, Alex has developed a simple colour-change system for food packaging that alerts consumers to bacterial contamination

Social entrepreneurs

- Julian Melchiorri, founder of [Arborea](#), which is working to develop biotechnology solutions for urban pollution and wastewater treatment. Its BioSolar Leaf mimics photosynthesis to support energy producing, carbon-neutral buildings
- Elena Dieckmann and Ryan Robinson, co-founders of [Aeropowder](#), who are looking to repurpose feathers from the poultry industry that have traditionally gone to waste, and exploit the naturally high-performance

material into new products

- Tom Webster, co-founder of [GrowUp Urban Farms](#). With his co-founders Tom has developed an aquaponics system for the sustainable, year-round farming of produce and fish, allowing consumers to locally source their food

Technology

- Victor Dillard and Edward Perello, co-founders of [Desktop Genetics](#). The University of Cambridge postgrads marry software innovation with life sciences. They are building an AI to re-engineer the human genome and treat genetic causes of disease
- Ankur Modi, co-founder of [StatusToday](#), offers an AI tool that gives business managers insight into their employees, helping them to improve performance and recognise threats
- Timothy Sadler, co-founder, [CheckRecipient](#), which uses AI to spot and prevent email data breaches and loss before it happens

How we support businesses

These innovators have benefitted from a variety of Innovate UK programmes, including direct competition funding, innovation vouchers and knowledge transfer partnerships, which connect businesses with a university and recently-qualified graduate to bring in new knowledge.

Elena Dieckmann of Aeropowder was one of the winners in our [women in innovation](#) competition, receiving £50,000, a tailored business support package and mentorship. The competition aimed to challenge the low number of female entrepreneurs in the UK and encourage diversity.

[News story: New transparency measures for Taser use announced by Home Secretary](#)

The Home Secretary has today announced police forces will be required to collect and publish detailed data on all their use of force, including Taser usage, from April.

Adopting the recommendations of the David Shaw review into police use of force, Amber Rudd said officers will have to record the location and outcome of all CED usage, along with the ethnicity and age of those involved, with the first set of data being published locally by forces this summer.

And she said the new rules being introduced would allow the increased safeguards and transparency required for the introduction of the new Taser X2

device.

All police use of force, including physical restraint, will be captured in the new statistical publications – to be collected from April 1 and published by forces from July onwards.

The increased transparency and scrutiny will allow meaningful comparison of the effectiveness of different techniques and tactics for the first time.

Home Secretary Amber Rudd said:

We ask the police to put themselves in harm's way to defend us and the use of force is a vital part of their powers.

But when the police take the difficult decision to deploy force it is also vital that the people they serve can scrutinise it.

These new rules will introduce unprecedented transparency to this important subject and reinforce the proud British model of policing by consent.

The government is committed to improving the transparency and accountability of the police's use of force.

In 2014, the then Home Secretary, Theresa May, asked former National Police Lead for Conflict Management, Chief Constable David Shaw, to lead a review into what data should be recorded and published.

Work has been undertaken by police forces to implement the new data collection system recommended by the review by 1 April 2017. Forces will publish the information locally on a quarterly basis, and provide an annual snap-shot of the key information collected to the Home Office as part of the Annual Data Requirement for 2017/18.

For the first time, these data will allow meaningful comparison of the effectiveness of different techniques – which will strengthen police training, tactics, decision-making, and equipment procurement.

In authorising the new Taser, the Home Office has supported the police in an open and transparent procurement exercise to identify a new device that will eventually replace the current TASER X26.

As with the authorisation process for all less-lethal weapons, the X2 has undergone extensive evaluation. A full technical evaluation has been carried out by the Centre for Applied Science and Technology (CAST), and the results of that, user handling trials, training and guidance materials were submitted for an independent medical assessment by the Scientific Advisory Committee on the Medical Implications of Less-Lethal Weapons (SACMILL).

The Committee confirmed that the medical implications of the TASER X2 are in line with those expected of a less-lethal weapon of this type.

Details of all CED deployments will be recorded by the police and shared with SACMILL on a regular basis to ensure its findings remain accurate.

Minister for Policing and the Fire Service Brandon Lewis said:

The government is committed to giving the police the tools they need to do their job effectively – we must ensure our officers have access to the best, and most up-to-date technology available.

Tasers are an important tactical option for the police, particularly in potentially violent situations where other tactics have been considered or failed.

All officers who use Tasers have to go through a comprehensive training process. This includes training officers to factor in the potential vulnerability of the person and factors such as age and stature when assessing each situation.

David Shaw was Chief Constable for West Mercia until July 2016. You can read his [use of force data review](#).

Read the [TASER X2 SACMILL medical assessment](#).

[Welsh Government sets out plans for a North East Wales Metro](#)

The Infrastructure Secretary has launched '[Moving North Wales Forward – Our Vision for North Wales and the North East Wales Metro](#)' – which outlines how ambitious proposals will help connect people, communities and businesses to jobs, facilities and services across the region, with the North East Wales Metro integral to these plans.

Economy Secretary Ken Skates said:

“Modernising the transport network across North Wales and delivery of an integrated North East Wales Metro are key priorities for the Welsh Government. They will provide a fantastic platform to deliver sustainable economic development, connecting people, communities and business to employment, services, facilities and markets through reliable, resilient infrastructure.

“Brexit will mean it is more important than ever to have good connections to markets across the Wales – England border, which already sees around one million journeys per month. Direct links to

and from key centres in the Northern Powerhouse, the Midlands and to London and direct public transport services to airports and key rail hubs will all help to drive economic growth.

“I have already committed to projects of nearly £600 million for transport infrastructure improvements across the region whilst working hard to secure an additional £41 million of EU funding for transport schemes in the region. But it’s crucial that our investment and ambition does not stop there.

“I am proud to launch our vision for a fully integrated North East Wales Metro system which will transform transport links in North East Wales. This will be supported by our ongoing work on the future of local bus services, and by the new Wales and borders rail franchise which will be in place from 2018.

“I am also pleased to announce plans for a designated team to work in collaboration with other public sector organisations, operators, business, the third sector and communities on both sides of the border to develop the vision and improve transport integration across all modes. This will help inform and deliver a transport system that meets the needs of North Wales, ensuring our vision for a connected North East Wales becomes a reality.

“There is huge potential to deliver increased economic growth in North Wales. A modern, high quality integrated transport system is fundamental to achieving that potential and I am committed to working to make that a reality.”

Councillor Dilwyn Roberts, Chair of the North Wales Economic Ambition Board said:

“The announcement is a firm commitment by the government to support economic growth and prosperity in North Wales, putting it on an equal footing with the city regions in South Wales.

“I particularly welcome the ‘whole system’ approach outlined in the Vision that recognises the strong link between the health of the economy and an effective and modern transport system. The plan is enhanced by the recognition of the cross border commuter flows in the Mersey Dee area.

“I look forward to working with the Cabinet Secretary to implement the vision for the benefit of all parts of North Wales.”

Cllr Samantha Dixon, Leader of Cheshire West and Chester Council and Chair of Growth Track 360, the campaign to secure £1bn of rail improvements for North Wales and Cheshire, welcomed the announcement and said:

“The vision for a Metro for North East Wales will complement the integrated service and infrastructure improvements we are seeking as part of the Growth Track campaign.

“Such investment is essential if we are to create opportunities for generations to come. This investment would increase productivity and economic growth, increasing tax revenues and reducing unemployment across the region.”

[Press release: Flood relief for villages in Worcestershire](#)

Construction will start this summer on a £4 million flood storage area which will reduce the risk of flooding to nearly 300 homes and businesses in Broadway, Childswickham and Murcot.

The Environment Agency, Worcestershire County Council, Wychavon District Council, Broadway Parish Council and Childswickham Parish Council have been working in partnership and have now secured over £2 million Government Grant in Aid funding, enabling the scheme construction to begin. The Environment Agency’s English Severn and Wye Regional Flood and Coastal Committee have also contributed over £1 million. To enable access to the Government Grant in Aid funding under Defra’s Flood Partnership Funding Model, Worcestershire County Council and Wychavon District Council are contributing £555,000 and the local parishes have raised £312,000.

Broadway, Childswickham and Murcot were severely flooded in 2007 following record breaking rainfall across the area. The new flood storage area in Broadway will be able to hold up to 135,000 cubic metres of water during times of flood and will only allow a set amount of water to flow downstream at times of intense and high rainfall. This will reduce flood risk along the Badsey Brook downstream of Broadway.

The English Severn and Wye Regional Flood and Coastal Committee (RFCC) continues to support the scheme and provided funding which allowed the Environment Agency to purchase the 18 acre field where the majority of the flood storage area is to be located.

As a condition of the planning application detailed archaeological investigations, part funded by Worcestershire County Council, are being carried out. This involves excavation work and will reduce the risk of delays during construction. These ground works are almost complete.

Specialist contractors are currently on site carrying out tree clearance in preparation for the main flood scheme works.

Daniel Wilkinson, from the Environment Agency, said:

Flooding has a devastating impact on people's lives and livelihoods, so it's great that by working together with our partners we have managed to find a solution which means we are now one step closer to reducing the risk of flooding for residents living in Broadway, Childswickham and Murcot.

Cllr Anthony Blagg, Worcestershire County Council's cabinet member for environment, said:

Now that the archaeological work is nearing completion, this project can move on to the next stage and closer to protecting homes and businesses with this innovative flood alleviation scheme.

Cllr Emma Stokes, portfolio holder for environment and street scene on Wychavon District Council, said:

It's almost 10 years since the floods of 2007 but none of us will forget the devastating impact they had. This scheme will help reduce the risk of future flooding and provide greater protection to communities in Broadway, Childswickham and Murcot.

Kevin Beasley, from Broadway Parish Council, said:

We are very pleased that the flood alleviation scheme is progressing well and that the residents of both Broadway, Childwickham and Murcot will be more reassured that the properties are safer from flooding and the devastation that they have previously experienced, once the work is completed.

County Cllr for Broadway in Worcestershire, Liz Eyre BEM, said:

This project represents an enormous amount of hard work behind the scenes. I am simply delighted that sticking by the project, working with talented county and district officers at all levels and the Environment Agency has led to this, a real outcome for my residents.

News story: Synthetic Environment Tower Community of Practice

The Defence Science and Technology Laboratory (Dstl) is looking to expand its Synthetic Environment Tower of Excellence (SE Tower) Community of Practice (COP).

Since 2004, the SE Tower has provided a mechanism for the Ministry of Defence (MOD), industry and academia to work together on areas of research in simulation and synthetic environments. The SE Tower aims to develop UK defence capability in this area, and annually seeks to refresh its relationships with the supplier community by opening the COP to new members.

Last year, 11 members joined, bringing our total membership to 49, benefiting from twice-yearly Information Exchange Events (IEE) and access to the Shared Working Environment. The next event is planned for Wednesday 10 May 2017 where Dstl will once again be looking at ways to increase the mutual understanding and co-operation between the MOD and the sector.

Simulation and synthetic environments are used by MOD in a variety of ways, from supporting training, concept development and experimentation, to acquisition, evaluation and mission preparation.

We are now accepting applications to join the SE Tower COP until Friday 7 April 2017. Application forms can be found at the [SE Tower website](#) along with more information on the COP.